

**Zimmer**  
MedizinSystems



Zimmer

Cryo

## Cryo



### **State-of-the-Art Cryotherapy with -30°C Air**

The newest generation of cryotherapy systems. The Cryo 6 features cooled air for efficient pain treatment, swelling reduction and muscle relaxation. The system enables cryotherapy with precise placement and at a constant dosage, every time. The device uses no consumables and delivers high power. This enables a quick decrease in superficial skin temperature, while maintaining the ability to operate all day.

Unlike other cooling methods, such as contact cooling, cryogen spray or ice packs, the Cryo 6 decreases the skin temperature quicker, with less risk of skin burns and keeps a constant dosage throughout the entire treatment time.

-30°C Cold Air



**Easy to operate**

A large display clearly indicates all treatment parameters. The Cryo 6 features a tactile glass keyboard, which permits the selection of treatment time and air flow settings.

Press Start. That's it!

An optional articulating arm facilitates hands-free operation.

The light weight application hose can be connected to the Zimmer adapter to permit controlled spot cooling for hard to treat areas. Clinicians can easily regulate the air flow as needed.

**Increased Patient Comfort**  
**Hands-free Operation**  
**No Consumables**



#### **Economic**

Ambient room air is filtered and cooled down to - 30° C by a closed loop cooling circuit.

- Cost efficient: no consumables or additional costs.
- Powerful: full day operation with no waiting period after downtime.
- Practical: a custom-designed glass shelf just where you need it for accessories.

#### **Easy Maintenance**

A monitoring system measures the defrosted water level and a defrosting feature provides smooth-running daily operation.

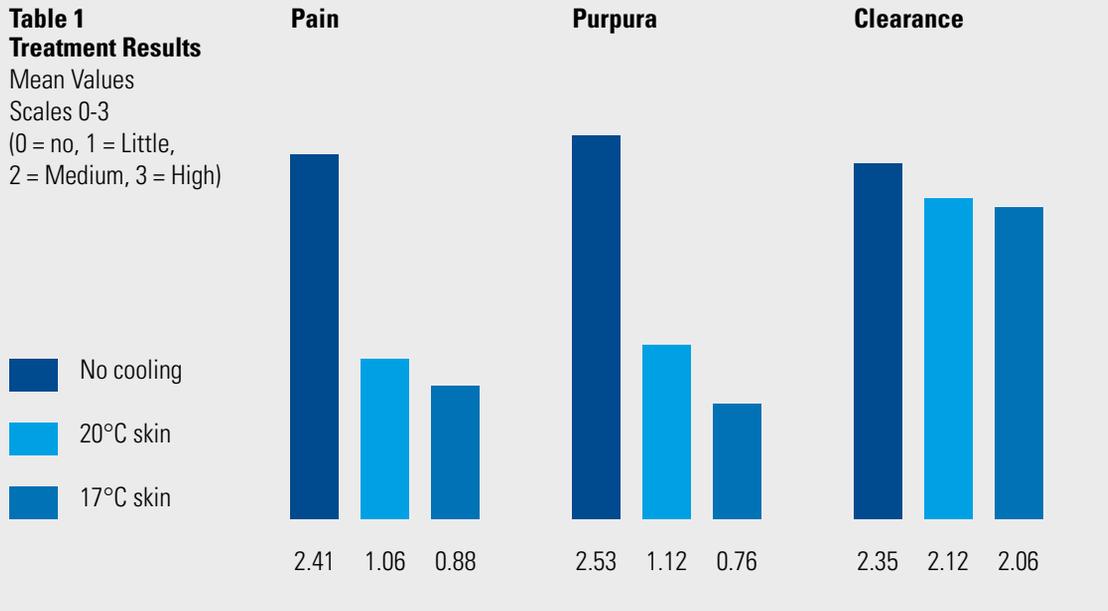
The air filter is easy to clean, just vacuum in place when dirty.

# Evaluation of Different Temperatures in Cold Air Cooling With Pulsed-Dye Laser

Stefan Hammes and Christian Raulin, MD\* Laserklinik Karlsruhe, Karlsruhe, Germany

**Table 1**  
**Treatment Results**

Mean Values  
Scales 0-3  
(0 = no, 1 = Little,  
2 = Medium, 3 = High)



## Background and Objectives

Cold air cooling is widely used in dermatological laser therapy. We investigated the influence of cold air cooling at different skin temperatures on therapeutic outcome and side effects of pulsed dye laser treatment of facial telangiectasia.

## Study Design / Materials and Methods

From September 2002 to February 2003, 17 patients with previously untreated facial telangiectasia underwent a single treatment session with flash-lamp pulsed dye laser (3.5 J / cm<sup>2</sup>, 585 nm, 0.45 milliseconds pulse length, 10 mm beam diameter, Cynosure 1 V). The treatment area was divided into three sub-areas: no cooling, cold air cooling to 20°C and to 17°C skin temperature. The skin temperature was monitored by a prototype infrared sensor system which controlled the temperature of the cold air stream (Cryo 5). In a prospective study, we collected data on purpura, pain, clearance, and patient satisfaction on numerical analog scales (NAS) from 0 (meaning »no«) to 3 (meaning »high«).

## Results

Without cooling, purpura (2.53), pain (2.41), and clearance (2.35) were rated medium to high. Cooling to 20°C reduced purpura (1.12) and pain (1.06), whereas the clearance (2.12) was only slightly affected. Cooling to 17°C reduced purpura (0.88) and pain (0.76) even more, the clearance (2.06) was lowered marginally. Most patients preferred cooling to 20°C skin temperature.

## Conclusion

In dermatological laser therapy of facial telangiectasia, the use of cold air cooling can significantly reduce side effects and increase patient satisfaction while only slightly affecting clearance. Cooling to 20°C skin temperature proved to be a well-balanced middle course. For the practical use of cold air cooling, we thus recommend cooling to a level which the patient can tolerate without problems and to try to increase the energy densities.

## Technical Data

|                                   |                                  |
|-----------------------------------|----------------------------------|
| Power Supply                      | 115 V / 60 Hz                    |
| Power Input Max.                  | 1 kW                             |
| Stand-by Function                 | 260 W / h                        |
| Protection According to IEC 601-1 | Class I, Type B                  |
| MDD / MPG                         | Class IIa                        |
| Treatment Tube Length             | 6 ft.                            |
| Housing Dimensions                | H 25" / W 15" / L 27"            |
| Weight                            | 132 lbs. (including glass plate) |
| Therapy Air Flow                  | 9 levels, max. 1000 l / min      |

## Accessories



Articulating arm



Handpiece adapter



Castor with brake